## 3. DATA

The project hypothesis was tested during the study period by measurements of water level, wind speed and direction, and water velocity, temperature, salinity and bottom pressure at a number of locations within the Albemarle-Pamlico system. The locations of the measurement sites are presented in Table 1 and shown in Figure 4. Sites 1, 3 and 7 are maintained by the National Weather Service while all other sites were installed as part of this project. The actual instrumentation present at each site during each deployment is given in Table 2. Sketches of the moorings at Site 10, actually the Intracoastal Waterway (ICWW) Marker 8 and Site 6, actually the Route US 64 Bridge, are given in Figures 5 and 6, as representative examples. All instruments utilized in this study recorded data internally on cassettes which were removed and replaced every eight weeks. The process included six separate complete instrument turnaround deployments. After each data retrieval, the tapes that were retrieved were returned to North Carolina State University (NCSU) for processing. The first round of processing produced binary data which was then converted to digital data. These data series were then subjected to a three hour low pass (hrlp) filtering process (Pietrafesa, et al., 1977) which removed high frequency noise which might be present in the raw data. Finally the data series were subjected to a forty hour low pass filtering process (Pietrafesa et al., 1977). This filtering technique allows us to distinguish between high and low frequency forced motions. Since for every individual deployment each data tape contains from one (at water level recorders) to six (at current meters) data time series and each time series may exist in three forms (raw, 3hrlp, 40hrlp) and there were a total of six deployments, a large quantity of data and data products exist. Fifty-five instruments were deployed, 54 were returned (1 was lost) and 11 were returned with no or bad data for an 80% success rate of good data versus instruments recovered. These data were analyzed using time series analysis techniques and conclusions were subsequently drawn.